

Marked-Up Version of Two (2) Replacement Paragraphs

Figure 3 - shows a schematic view of the R. corallina ohp operon obtained by functional screening in E. coli, as described in Example 7. The schematic shows location of predicted genes: Regulator (SEO ID No. 3), Transport (SEO ID No. 4), Monooxygenase (SEO ID No. 5), Hydroxymuconic semialdehye hydrolase (SEO ID No. 6), Catechol-2,3-dioxygenase (SEO ID No. 7), Alcohol dehydrogenase (SEO ID No. 8). Initiator and terminator codons are shown as half height and full height lines respectively. Base coordinates refer to the Figure 4 sequence. The location of predicted promoter regions and direction are indicated by arrows. The molecular weights and coordinates of ohp genes are tabulated.

Figure 4 - shows the complete listing of the *R*. corallina ohp operon as described in Example 7 (SEQ ID No. 1 - top strand; SEQ ID No. 2 - bottom strand). It includes a portion of a putative nitropropane promoter (51 of the regulator).



Marked-Up Version of Primers

F:127 5'CGCTGATTTGTATTGTCTG 3'145 (SEQ ID No. 9)

R:502 5'GACTTCCATTGTTCATTCC 3'484 (SEQ ID No. 10)

F:51171 5'AAAAGACGTCGGTGCTAATAAGGGACAGTG 3'51190 (SEQ ID No. 11)

R:51395 5'AAAAGACGTCACAAAACAGCAGGGAAGCAG 3'51376 (SEO ID No. 12)



Marked-Up Version of Amended Claims

- 34. (Twice Amended) A vector as claimed in claim 33 [which is pJP7 as described herein] comprising lux AB signal genes, sacB gene, kanamycin and thiostrepton resistance genes, an E. coli origin of replication, and RP4 mobilizing elements.
- 50. (Amended) An isolated nucleic acid molecule comprising a nucleotide sequence encoding an operon protein, which operon protein is the Regulator (REG) protein of the R. corallina ohp operon [or a modification thereof].
- 51. (Amended) A nucleic acid molecule as claimed in claim 50 wherein the nucleotide sequence encodes the amino acid sequence shown in Fig. 4 (SEO ID No. 1) from initiator codon 295 to terminator codon 1035.
- 52. (Amended) A nucleic acid molecule as claimed in claim 51 wherein the nucleotide sequence is shown in Fig. 4 (SEO ID No. 1) from initiator codon 295 to terminator codon 1035.
- 53. (Amended) A nucleic acid molecule as claimed in claim 50 wherein the nucleotide sequence is at least 90% identical to the one shown in Fig. 4 (SEO ID No. 1) from initiator codon 295 to terminator codon 1035.
- 54. (Amended) A nucleic acid as claimed in claim 50 further comprising an inducible promoter region of the nucleotide

sequence encoding the *R. corallina ohp* operon described in Fig. 3 (SEO ID No. 1) wherein the Regulator (REG) protein controls transcriptional initiation of said inducible promoter region.

- 55. (Amended) A nucleic acid as claimed in claim 54 wherein the promoter region is the ohp promoter region which lies between genes orfR regulatory gene (terminator codon 1035) and orfT transport (initiator codon 1450) shown in Fig. 4

 (SEO ID No. 1) or is a modified inducible promoter region which is at least 90% identical to said ohp promoter region.
- 57. (Amended) A vector as claimed in claim [50] <u>56</u> comprising one or more of the following: luxAB signal genes; sacB gene; antibiotic resistance; RP4/RK2 mobilizing elements.